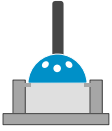


Summary of the most commonly used test methods

Total Hip Replacement

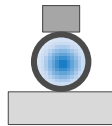
Acetabular devices, cups and inserts



ASTM F1820 - Standard test method for determining the forces for disassembly of modular acetabular devices

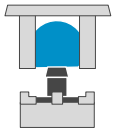


S11 based on WK28883 - Standard test method for fatigue testing of acetabular devices for total hip replacement

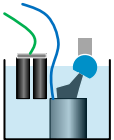


ISO 7206-12 - Implants for surgery -- Partial and total hip joint prostheses -- Part 12: Deformation test method for acetabular shells

Modular hip cone, taper interface



ISO 7206-13 - Implants for surgery -- Partial and total hip joint prostheses -- Part 13: Determination of resistance to torque of head fixation of stemmed femoral components



ASTM F1875 - Standard practice for fretting corrosion testing of modular implant interfaces: hip femoral head-bore and cone taper interface

Hip stem



ISO 7206-6 - Implants for surgery — Partial and total hip joint prostheses — Part 6: Endurance properties testing and performance requirements of neck region of stemmed femoral components



ISO 7206-4 - Implants for surgery — Partial and total hip joint prostheses — Part 4: Determination of endurance properties and performance of stemmed femoral components



ASTM F2580 - Standard practice for evaluation of modular connection of proximally fixed femoral hip prosthesis



ASTM F2996 - Standard practice for finite element analysis (FEA) of non-modular metallic orthopaedic hip femoral stems

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Summary of the most commonly used test methods

Total Hip Replacement

Femoral head



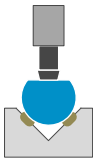
ISO 7206-10 - Implants for surgery — Partial and total hip-joint prostheses — Part 10: Determination of resistance to static load of modular femoral heads



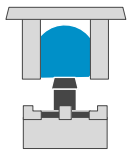
ASTM F2009 - Standard test method for determining the axial disassembly force of taper connections of modular prostheses



ASTM F2345 - Standard test methods for determination of static and cyclic fatigue strength of ceramic modular femoral heads



ISO 11491 - Implants for surgery — Determination of impact resistance of ceramic femoral heads for hip joint prostheses



ISO 7206-13 - Implants for surgery — Partial and total hip joint prostheses — Part 13: Determination of resistance to torque of head fixation of stemmed femoral components



ISO 7206-2 - Implants for surgery — Partial and total hip joint prostheses — Part 2: Articulating surfaces made of metallic, ceramic and plastics materials

Total hip replacement



ISO 14242-1 - Implants for surgery — Wear of total hip-joint prostheses — Part 1: Loading and displacement parameters for wear-testing machines and corresponding environmental conditions for test
ISO 14242-2 - Implants for surgery — Wear of total hip-joint prostheses — Part 2: Methods of measurement



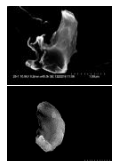
ASTM F2582 - Standard test method for impingement of acetabular prostheses



ASTM F 14242-4 - Implants for surgery — Wear of total hip-joint prostheses — Part 4: Testing hip prostheses under variations in component positioning which results in direct edge loading



ASTM F3047M - Standard Guide for High Demand Hip Simulator Wear Testing of Hard-on-hard Articulations



ASTM F1877 - Standard practice for characterization of particles
ISO 17853 - Wear of implant materials — Polymer and metal wear particles — Isolation and characterization

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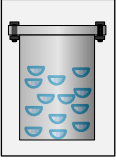
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Summary of the most commonly used test methods

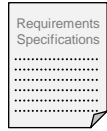
Total Hip Replacement

Aging



ASTM F2003 - Standard practice for accelerated aging of ultra-high molecular weight polyethylene after gamma irradiation in air

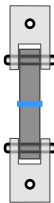
Specifications and requirements



ASTM F2068 - Standard specification for femoral prostheses — metallic implants

ISO 21535 - Non-active surgical implants — Joint replacement implants — Specific requirements for hip-joint replacement implants

Calciumphosphate or metallic coatings



ISO 13779-4 - Implants for surgery — Hydroxyapatite — Part 4: Determination of coating adhesion strength

ASTM F1147 - Standard test method for tension testing of calcium phosphate and metallic coatings



ASTM F1044 - Standard test method for shear testing of calcium phosphate coatings and metallic coatings

ASTM F1160 - standard test method for shear and bending fatigue testing of calcium phosphate and metallic medical and composite calcium phosphate/metallic coatings

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